

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of claims:

1. (Original) A radar apparatus comprising:
 - a transmitter section having an antenna for radiating a transmit signal;
 - a receiver section having a plurality of antennas for receiving said transmit signal reflected from an object, a first selector switch section for sequentially selecting output terminals of said plurality of antennas one at a time for connection to an input terminal, a first downconverting section for downconverting, by using a portion of said transmit signal, a received signal input from each of said antennas to said input terminal via said first selector switch section, a low-frequency cut-off filter connected to an output of said first downconverting section, and a second selector switch section for connecting an output of said low-frequency cut-off filter to a sequentially selected one of a plurality of A/D converters; and
 - a digital signal processing section for receiving outputs of said plurality of A/D converters, and for applying prescribed processing to said outputs to detect distance to said object or relative velocity with respect to said object, wherein
 - said first and second selector switch sections both operate with the same switching period (first period), and
 - an on-off control section is provided which performs on-off control with a second period shorter than said first period when the output terminal of each of said plurality of antennas is connected to said input terminal.
2. (Original) A radar apparatus as claimed in claim 1, wherein said on-off control section is an amplifier provided between said first selector switch section and said first downconverting section, and said amplifier is controlled on and off repetitively with said second period shorter than said first period.

3. (Original) A radar apparatus as claimed in claim 1, wherein said on-off control section is contained in said first selector switch section, and said first selector switch section performs on-off control with said second period shorter than said first period when the output terminal of each of said plurality of antennas is connected to said input terminal.

4. (Original) A radar apparatus as claimed in claim 1, wherein said first selector switch section is constructed from amplifiers connected to the output terminals of said plurality of antennas, and said output terminals of said plurality of antennas are sequentially selected one at a time for connection to said input terminal by controlling said amplifiers on and off, and wherein, when the output terminal of each of said plurality of antennas is connected to said input terminal, said amplifier connected to said antenna is controlled on and off repetitively with said second period shorter than said first period.

5. (Currently amended) A radar apparatus as claimed in ~~any one of claims 1 to 4~~ claim 1, wherein said A/D converters are sampled periodically with a third period shorter than said second period.

6. (Original) A radar apparatus as claimed in claim 1, wherein an amplifier is provided between said first selector switch section and said first downconverting section, and a second downconverting section is provided between said second selector switch section and said A/D converters, and wherein said amplifier and said second downconverting section are controlled on and off repetitively with said second period.

7. (Original) A radar apparatus as claimed in claim 1, wherein an amplifier is provided between said first selector switch section and said first downconverting section, and a second downconverting section and a third downconverting section are provided between said second selector switch section and said A/D converters, and wherein said amplifier and said second downconverting section are controlled on and off repetitively with said second period,

while said third downconverting section is controlled on and off repetitively with said first period.

8. (Original) A radar apparatus as claimed in claim 1, wherein said plurality of antennas for receiving said transmit signal reflected from said object are transmit/receive antennas for radiating said transmit signal, and said plurality of transmit/receive antennas are provided with first connecting means for connecting to said transmitter section and said receiver section in turn and with second connecting means and third connecting means for connecting to said transmitter section and said receiver section, respectively, so that said transmit signal is radiated and said reflected signal received when each of said antennas is connected by said first connecting means, and wherein, when said each antenna is connected to said receiver section, said third connecting means turns on and off the connection with said receiver section.

9. (Original) A radar apparatus as claimed in claim 1, wherein said first selector switch section has a configuration for selecting two adjacent antenna channels simultaneously and connecting said adjacent channels to said input terminal in alternating fashion, and wherein, when performing processing in said digital signal processing section, phase correction is applied based on a phase relationship obtained with each of said adjacent channels acting as a reference channel.